IFW

CASE LA0120 NP

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jonathan N. Provoost		Sept. 23, 2004
Type or print name	Signature	Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF Art Unit: 1614

RYONO ET AL.

APPLICATION NO: 10/826,100

FILED: APRIL 15, 2004

FOR: THYROID RECEPTOR LIGANDS

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

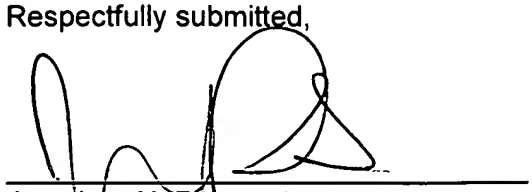
Applicants believe this paper is being filed before the mailing date of a first Office Action on the merits, and so under 37 C.F.R. §1.97(b)(3) no fees are required. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 19-3880.

In accordance with 37 C.F.R. §1.56, applicants wish to call the Examiner's attention to the references cited on the attached form(s) PTO-1449.

Copies of these references are enclosed herewith.

The Examiner is requested to consider the foregoing information in relation to this application and indicate that each reference was considered by returning a copy of the initialed PTO 1449 form(s).

Respectfully submitted,



Jonathan N. Provoost
Attorney for Applicants
Reg. No. 44,292

Bristol-Myers Squibb Company
Patent Department
P.O. Box 4000
Princeton, NJ 08543-4000
(609) 252-3816

Date: Sept 23, 2004

FORM PTO-1449 (REV. 7-85)
U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AA	3,239,345	3/8/66	Hodge et al.			
	AB	3,983,140	9/28/76	Endo et al.			
	AC	4,027,009	5/31/77	Grier et al.			
	AD	4,036,979	7/19/77	Asato			
	AE	4,231,938	11/4/80	Monaghan et al.			
	AF	4,346,227	8/24/82	Terahara et al.			
	AG	4,411,890	10/25/83	Momany			
	AH	4,448,784	5/15/84	Glamkowski et al.			
	AI	4,450,171	5/22/84	Hoffman et al.			
	AJ	4,499,289	2/12/85	Baran et al.			
	AK	4,613,610	9/23/86	Wareing			
	AL	4,647,576	3/3/87	Hoefle et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	AM	EP 0 142 146	8/31/88	EP			☐	☐
	AN	EP 0 221 025	5/6/87	EP			☐	☐
	AO	2 596 393	10/2/87	FR			☐	☐
	AP	WO 86/03488	6/19/86	PCT			☐	☐
	AQ	WO 86/07054	12/4/86	PCT			☐	☐

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	AR	Biller, S.A. et al., "Isoprenoid (Phosphinylmethyl)phosphonates as Inhibitors of Squalene Synthetase", Journal of Medicinal Chemistry, Vol. 31, No. 10, pp. 1869-1871 (1988)
	AS	Biller, S.A. et al., "Squalene Synthase Inhibitors", Current Pharmaceutical Design, Vol. 2, No. 1, pp. 1-40 (1996)
	AT	Bundgaard, H., Chapter 5: "Design and Application of Prodrugs", A Textbook of Drug Design and Development, Harwood Academic Publishers, publ., Krogsgaard-Larsen, P. et al., eds., pp. 113-191 (1991)

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	2AA	4,681,893	7/21/87	Roth			
	2AB	4,686,237	8/11/87	Anderson			
	2AC	4,759,923	7/26/88	Buntin et al.			
	2AD	4,871,721	10/3/89	Biller			
	2AE	4,924,024	5/8/90	Biller			
	2AF	5,006,530	4/9/91	Angerbauer et al.			
	2AG	5,177,080	1/5/93	Angerbauer et al.			
	2AH	5,273,995	12/28/93	Roth			
	2AI	5,354,772	10/11/94	Kathawala			
	2AJ	5,385,929	1/31/95	Bjorge et al.			
	2AK	5,401,772	3/28/95	Yokoyama et al.			
	2AL	5,488,064	1/30/96	Sher			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	2AM	WO 89/07110	8/10/89	PCT			☐	☐
	2AN	WO 89/07111	8/10/89	PCT			☐	☐
	2AO	WO 93/04081	3/4/93	PCT			☐	☐
	2AP	WO 97/21993	6/19/97	PCT			☐	☐
	2AQ	WO 99/00353	1/7/99	PCT			☐	☐

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	2AR	Bundgaard, H., ed., Design of Prodrugs, Elsevier Science Publishers B.V., publ. (1985) (table of contents)
	2AS	Capson, T.L., "Synthesis and Evaluation of Ammonium Analogs of Carbocationic Intermediates in Squalene Biosynthesis", dissertation, Department of Medicinal Chemistry, University of Utah, pp. iv-v, Table of Contents, 16-17, 40-43, 48-51 (June 1987)
	2AT	Chan, D.M.T. et al., "New N- and O-Arylations with Phenylboronic Acids and Cupric Acetate", Tetrahedron Letters, Vol. 39, pp. 2933-2936 (1998)

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	3AA	5,491,134	2/13/96	Sher et al.			
	3AB	5,541,204	7/30/96	Sher et al.			
	3AC	5,595,872	1/21/97	Wetterau, II et al.			
	3AD	5,612,359	3/18/97	Murugesan			
	3AE	5,686,104	11/11/97	Mills et al.			
	3AF	5,712,279	1/27/98	Biller et al.			
	3AG	5,712,396	1/27/98	Magnin et al.			
	3AH	5,739,135	4/14/98	Biller et al.			
	3AI	5,760,246	6/2/98	Biller et al.			
	3AJ	5,770,615	6/23/98	Cheng et al.			
	3AK	5,776,983	7/7/98	Washburn et al.			
	3AL	5,827,875	10/27/98	Dickson, Jr. et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	3AM	WO 00/01389	1/13/00	PCT			☐	☐
	AN						☐	☐
	AO						☐	☐
	AP						☐	☐
	AQ						☐	☐

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	3AR	Chiellini, G. et al., "A high-affinity subtype-selective agonist ligand for the thyroid hormone receptor", Chemistry & Biology, Vol. 5, No. 6, pp. 299-306 (1998)
	3AS	Corey, E.J. et al., "Application of Unreactive Analogs of Terpenoid Pyrophosphates to Studies of Multistep Biosynthesis: Demonstration That 'Presqualene Pyrophosphate' Is an Essential Intermediate on the Path to Squalene", J. Am. Chem. Soc., Vol. 98, No. 5, pp. 1291-1293 (1976)
	3AT	Couladouros, E.A. et al., "A general synthetic route towards bastadins. Part 1: Synthesis of the eastern part of bastadins 4-16", Tetrahedron Letters, Vol. 40, pp. 7023-7026 (1999)

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	4AA	5,885,983	3/23/99	Biller et al.			
	4AB	5,962,440	10/5/99	Sulsky			
	4AC	6,043,265	3/28/00	Murugesan et al.			
	4AD	6,184,231	2/6/01	Hewawasam et al.			
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
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	AL						

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	AO						☐	☐
	AP						☐	☐
	AQ						☐	☐

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	4AR	Dibbo, A. et al., "The Synthesis of Thyroxine and Related Compounds. Part XVII. The Preparation of Some Additional Compounds related to Thyroxine", J. Chem. Soc., pp. 2890-2902 (1961)
	4AS	Edwards, J.P. et al., "Nonsteroidal Androgen Receptor Agonists Based on 4-(trifluoromethyl)-2*H*-pyrano[3,2-*g*]quinolin-2-one", Bioorganic & Medicinal Chemistry Letters, Vol. 9, pp. 1003-1008 (1999)
	4AT	Evans, D.A. et al., "Synthesis of Diaryl Ethers through the Copper-Promoted Arylation of Phenols with Arylboronic Acids. An Expedient Synthesis of Thyroxine", Tetrahedron Letters, Vol. 39, pp. 2937-2940 (1998)

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	5AA	Ghiselli, G., "The Pharmacological Profile of FCE 27677: A Novel ACAT Inhibitor with Potent Hypolipidemic Activity Mediated by Selective Suppression of the Hepatic Secretion of ApoB-100-Containing Lipoprotein", Cardiovascular Drug Reviews, Vol. 16, No. 1, pp. 16-30 (1998)
	5AB	Greene, T.W. et al., Protective Groups in Organic Synthesis, Third Edition, John Wiley & Sons, Inc., publ., pp. xi-xii (table of contents) (1999)
	5AC	Guo, Z.-W. et al., "Enzymatic Oxidative Phenolic Coupling", J. Org. Chem., Vol. 62, No. 20, pp. 6700-6701 (1997)
	5AD	Hamann, L.G. et al., "Discovery of a Potent, Orally Active, Nonsteroidal Androgen Receptor Agonist: 4-Ethyl-1,2,3,4-tetrahydro-6-(trifluoromethyl)-8-pyridono[5,6-*g*]-quinoline (LG121071)", J. Med. Chem., Vol. 42, No. 2, pp. 210-212 (1999)
	5AE	Hara, S., "Ileal Na^+/bile acid cotransporter inhibitors", Drugs of the Future, Vol. 24, No. 4, pp. 425-430 (1999)
	5AF	Harrington, C.R., "Synthesis of a Sulphur-containing Analogue of Thyroxine", Biochem. J., Vol. 43, pp. 434-437 (1948)
	5AG	Hickey, D.M.B. et al., "Synthesis of Thyroid Hormone Analogues. Part 2. Oxidative Coupling Approach to SK&F L-94901", J. Chem. Soc. Perkin Trans. I, pp. 3097-3102 (1988)
	5AH	Hickey, D.M.B. et al., "Synthesis of Thyroid Hormone Analogues. Part 3. Iodonium Salt Approaches to SK&F L-94901", J. Chem. Soc. Perkin Trans. I, pp. 3103-3111 (1988)
	5AI	Horner, L. et al., "Die Synthese brücken-analoger Thyroninverbindungen", Chemische Berichte, Vol. 85, pp. 520-530 (1952)
	5AJ	Johannsson, G. et al., "Growth Hormone Treatment of Abdominally Obese Men Reduces Abdominal Fat Mass, Improves Glucose and Lipoprotein Metabolism, and Reduces Diastolic Blood Pressure", Journal of Clinical Endocrinology and Metabolism, Vol. 82, No. 3, pp. 727-734 (1997)
	5AK	Kalinin, A.V. et al., "The Directed Ortho Metalation-Ullmann Connection. A New Cu(I)-Catalyzed Variant for the Synthesis of Substituted Diaryl Ethers", J. Org. Chem. Vol. 64, No. 9, pp. 2986-2987 (1999)
	5AL	Krause, B.R. et al., Chapter 6: "ACAT Inhibitors: Physiologic Mechanisms for Hypolipidemic and Anti-Atherosclerotic Activities in Experimental Animals", Inflammation: Mediators Pathways, CRC Press Inc., publ., Ruffolo, Jr., R.R. et al., eds., pp. 173-198 (1995)
	5AM	Marcoux, J.-F. et al., "A General Copper-Catalyzed Synthesis of Diaryl Ethers", Vol. 119, No. 43, pp. 10539-10540 (1997)
	5AN	McClard, R.W. et al., "Novel Phosphonylphosphinyl (P-C-P-C-) Analogues of Biochemically Interesting Diphosphates. Syntheses and Properties of P-C-P-C- Analogues of Isopentenyl Diphosphate and Dimethylallyl Diphosphate", J. Am. Chem. Soc., Vol. 109, pp. 5544-5545 (1987)

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	6AA	Nicolosi, R.J. et al., "The ACAT Inhibitor, CI-1011 is effective in the prevention and regression of aortic fatty streak area in hamsters", Atherosclerosis, Vol. 137, pp. 77-85 (1998)
	6AB	Ortiz de Montellano, P.R. et al., "Inhibition of Squalene Synthetase by Farnesyl Pyrophosphate Analogues", Journal of Medicinal Chemistry, Vol. 20, No. 2, pp. 243-249 (1977)
	6AC	Rosenblum, S.B. et al., "Discovery of 1-(4-Fluorophenyl)-(3*R*)-[3-(4-fluorophenyl)-(3*S*)-hydroxypropyl]-(4*S*)-(4-hydroxyphenyl)-2-azetidinone (SCH 58235): A Designed, Potent, Orally Active Inhibitor of Cholesterol Absorption", J. Med. Chem., Vol. 41, No. 6, pp. 973-980 (1998)
	6AD	Salamonczyk, G.M. et al., "A Concise Synthesis of Thyroxine (T_4) and 3,5,3'-Triiodo-L-thyronine (T_3)", Tetrahedron Letters, Vol. 38, No. 40, pp. 6965-6968 (1997)
	6AE	Salisbury, B.G. et al., "Hypocholesterolemic activity of a novel inhibitor of cholesterol absorption, SCH 48461", Atherosclerosis, Vol. 115, pp. 45-63 (1995)
	6AF	Sliskovic, D.R. et al., "ACAT Inhibitors: Potential Anti-atherosclerotic Agents", Current Medicinal Chemistry, Vol. 1, No. 3, pp. 204-225 (1994)
	6AG	Smith, C. et al., "RP 73163: A Bioavailable Alkylsulphinyl-Diphenylimidazole ACAT Inhibitor", Bioorganic & Medicinal Chemistry Letters", Vol. 6, No. 1, pp. 47-50 (1996)
	6AH	Sorbera, L.A. et al., "Avasimibe: Treatment of Lipoprotein Disorders – ACAT Inhibitor", Drugs of Future, Vol. 24, No. 1, pp. 9-15 (1999)
	6AI	Stanton, J.L. et al., "Synthesis and Biological Activity of Phenoxyphenyl Oxamic Acid Derivatives Related to L-Thyronine", Bioorganic & Medicinal Chemistry Letters, Vol. 10, pp. 1661-1663 (2000)
	6AJ	Stout, D.M., "Inhibitors of Acyl-CoA:Cholesterol *O*-Acyl Transferase (ACAT) as Hypocholesterolemic Agents. 6. The First Water-Soluble ACAT Inhibitor with Lipid-Regulating Activity, etc.", Chemtracts-Organic Chemistry, Vol. 8, pp. 359-362 (1995)
	6AK	Wermuth, C.G. et al., Chapter 31: "Designing Prodrugs and Bioprecursors I: Carrier Prodrugs", The Practice of Medicinal Chemistry, Academic Press, publ., Wermuth, C.G., ed., pp. 671-696 (1996)
	6AL	Yokoyama, N. et al., "Synthesis and Structure-Activity Relationships of Oxamic Acid and Acetic Acid Derivatives Related to L-Thyronine", J. Med. Chem., Vol. 38, No. 4, pp. 695-707 (1995)
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	AN	

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